

## REMARKS

By this amendment, no claims have been cancelled. Claim 7 has been amended. Claims 8-12 have been added. Claims 7-12 are computer readable medium claims that correspond to and depend on method Claims 1-6. Hence, Claims 1-12 are pending in the application.

### I. SUMMARY OF THE REJECTIONS/OBJECTIONS

Claim 7 has been objected to under 37 C.F.R. § 1.75(c) as allegedly being in improper form because it appears to be directed to a computer readable medium claim.

Claim 7 has been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention.

Claims 1-7 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent Number 5,606,693 issued to Nilsen et al. ("*Nilsen*").

Applicants respectfully traverse.

### II. RESPONSE TO OBJECTIONS/REJECTIONS NOT BASED ON PRIOR ART

Claim 7 has been objected to under 37 C.F.R. § 1.75(c) as allegedly being in improper form because it appears to be directed to a computer readable medium claim.

It is respectfully submitted that amended dependent Claim 7 is in proper form under 37 C.F.R. § 1.75(c), even though it is a computer readable medium claim that depends from a method claim.

Various tests have been established to determine whether a particular claim qualifies as a proper dependent claim. Significantly, none of the tests requires the dependent claim to fall within the same statutory class as the claim on which it depends. Specifically, MPEP § 608.01(n) states, among other things:

**"The fact that the independent and dependent claims are in different statutory classes does not, in itself, render the latter improper. Thus, if claim 1 recites a specific product, a claim for the method of making the product of claim 1 in a particular manner would be a proper dependent claim since it could not be**

infringed without infringing claim 1. Similarly, if claim 1 recites a method of making a product, a claim for a product made by the method of claim 1 could be a proper dependent claim.”

TEST #1: CLAIM 7 IS PROPER UNDER 35 U.S.C. § 112

35 U.S.C. § 112 is the statutory section that sets for the requirements of a proper dependent claim. In paragraph 4, 35 U.S.C. § 112 states:

Subject to the following paragraph, a claim in dependent form shall **contain a reference to a claim previously set forth** and then **specify a further limitation of the subject matter claimed**. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

The first sentence of this paragraph sets forth the two requirements for a proper dependent claim, and the second sentence sets forth the legal significance to the dependency.

With respect to the requirements, a proper dependent claim must (1) contain a reference to a claim previously set forth, and (2) specify a further limitation on the subject matter claimed. Both of these requirements are clearly satisfied by Claim 7. Specifically, Claim 7 clearly contains a reference to Claim 1. In addition, Claim 7 specifies the further limitation that instructions for performing the method of Claim 1 must stored on a computer-readable medium, so that the method would be performed when one or more processors execute the instructions. Since Claim 1 does not itself require that the method be performed by executing stored instructions, the limitation added by Claim 7 qualifies as a further limitation.

Because Claim 7 is a proper dependent claim, the second sentence of 35 U.S.C. § 112, fourth paragraph indicates that it is to be construed to incorporate by reference all the limitations of the claim to which it refers. Thus, in the present case, Claim 7 is to be construed to incorporate all limitations of the method set forth in Claim 1. That interpretation of Claim 7 is consistent with Applicant's understanding of Claim 7. Specifically, to infringe Claim 7, a computer readable medium would have to include instructions for each and every step recited in the parent Claim 1.

TEST #2: CLAIM 7 IS PROPER UNDER 37 C.F.R. § 1.75(c)

37 C.F.R. § 1.75(c) states:

"One or more claims may be presented in dependent form, referring back to and further limiting another claim or claims in the same application...."

The test set forth in 37 C.F.R. § 1.75(c) is merely an abbreviated restatement of the test set forth 35 U.S.C. § 112, fourth paragraph. As explained above, Claim 7 refers back to Claim 1, and introduces limitations that are not present in Claim 1. Consequently, Claim 7 satisfies the 37 C.F.R. § 1.75(c) for the same reasons that it satisfies the 35 U.S.C. § 112, fourth paragraph test.

TEST #3: CLAIM 7 IS PROPER UNDER MPEP § 608.01(n)

MPEP § 608.01(n) states:

"the test as to whether a claim is a proper dependent claim is that it shall include every limitation of the claim from which it depends (35 U.S.C. 112, fourth paragraph) or in other words that it shall not conceivably be infringed by anything which would not also infringe the basic claim."

Unfortunately, the MPEP test involves a circular reasoning, and is therefore less useful than the tests set forth in the relevant statute and rules. Specifically, the MPEP test indicates that incorporation of all of the limitations of the base claim is what determines whether a claim is a dependent claim. However, the statute clearly dictates that, by virtual of a claim being dependent, the claim must be construed to incorporate all of the limitations of the base claim.

However, in spite of the difficulty posed by this circular reasoning, it is respectfully submitted that Claim 7 is also proper under the MPEP test. As mentioned above, it is fully intended that Claim 7 incorporate all of the limitations of Claim 1. In other words, to infringe Claim 7, a computer readable medium must include instructions for performing each and every limitation recited in Claim 1.

To the extent that the three tests would yield different results, it is respectfully submitted that the outcome of the test set forth in the statute should govern. However, in the present case, it is respectfully submitted that all tests yield the same results; namely, that Claim 7 is a proper dependent claim. Thus, withdrawal of the 37 C.F.R. § 1.75(c) rejection is respectfully requested.

REJECTION BASED ON 35 U.S.C. § 112, second paragraph

Claim 7 meets all the requirements of 35 U.S.C. § 112, second paragraph because it points out and distinctly claims the subject matter which the Applicants regard as their invention. The Applicants have claimed, in clear language, a computer readable medium configured to perform the method recited in the parent claim. Further, as a practical matter, it may be more convenient for the Patent and Trademark Office to examine a single independent method claim with one or more dependent computer readable medium claims, rather the examining two independent claims, one directed to the method, while the other directed to the corresponding computer readable medium. By examining a single independent method claim with a dependent computer readable medium claim, the Patent and Trademark Office avoids the possibility that a discrepancy between the method claim and the computer readable medium claim may be overlooked.

In this fashion, the intent of 35 U.S.C. § 112, second paragraph is clearly and distinctly pointing out what is claimed is better served by a computer readable medium claim that depends from a method claim because (a) it avoids potential discrepancies between the independent method claim and the corresponding independent computer readable medium claim, and (b) the dependent computer readable medium claim particularly points out and distinctly claims an additional limitation.

Original Claim 7 was rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 7 has been amended to more fully point out and distinctly claim the subject matter which applicant regards as the invention. For example, Claim 7 now makes clear that it is directed towards a computer readable medium carrying one or more sequences of instructions for managing a system that includes a plurality of devices arranged in a network, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the method recited in Claim 1.

New Claims 8-12, which are directed to computer readable mediums, have been added to depend from Claims 2-6 respectively. New Claims 8-12 also point out and distinctly claim subject matter to which Applicants regard as their invention in a manner similar to Claim 7. Therefore, Applicants respectfully submit that the rejection under 35 U.S.C. § 112, second

paragraph raised by the Office Action has been rendered moot by the amendments and claim additions herein.

## II. RESPONSE TO OBJECTIONS/REJECTIONS BASED ON PRIOR ART

Pending Claims 1-12 over patentable over the prior art because one or more express elements featured in each claims are not disclosed, taught, or suggested by the prior art.

*Nilsen* is directed towards logging large volumes of data to a plurality of database servers. **Each database server reports status and availability to the configuration controller** which can then adjust future logging requests. The network operator can change the configuration stored in the configuration controller whenever reconfiguration is necessary such as by the addition of new database servers. **A data logging modification is then communicated to each currently active requestor workstation** by the configuration controller (Abstract, emphasis added).

### 1. Claims 1, 3, 8, and 10 are Patentable over *Nilsen*

Claims 1 and 8 feature the elements of:

- “gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network;”
- “modifying metadata within said centralized repository to initiate configuration changes within said network”
- “modifying the operation of one or more of said plurality of devices within said network by propagating said configuration changes from said centralized repository to the devices on said network to cause said configuration changes to take place”

These elements are not disclosed, taught, or suggested by *Nilsen*.

*Nilsen* lacks any suggestion that the data stored in the configuration controller functions as configuration information that **dictates a manner of operation for one or more of a plurality of devices within the network**, as required by Claims 1, 3, 8 and 10. In fact, the data stored at the configuration controller does not "dictate the manner of operation" of anything. Rather, the data stored at the configuration controller is merely a collection of data that the

database servers have reported to the configuration controller about their status. Thus, while status information flows from the database servers to the configuration controller, the configuration controller does not control anything based on that information. For example, the specification of *Nilsen* makes clear that the configuration data contained within the central configuration controller 132 and 134 merely describes “how many database servers are available and how they are to be accessed” (Col 3, lines 50-52). The configuration controller is thus a mechanism for database servers to communicate to other devices information about how they are working, not a mechanism to communicate to the database servers how they are to work.

The portion of *Nilsen* cited to show the express element beginning with “modifying the operation” quoted above (Col. 4, lines 2-4) merely states, *in toto*, “As logging proceeds in the database servers, status messages 210 are transmitted over the network 130 from each server to the central configurator 132. An end of data logging message 212 is also transmitted to the controller 132.” This portion of *Nilsen* merely states that status messages are transmitted from each database server to a central configurator. The status messages do not serve to dictate a manner of operation of the database servers. Further, to the extent that the central configurator communicates information to any other entity, the central configurator merely communicates a message regarding the data logging modification to each currently active requestor workstation. For example, if a database server went off line, the workstations would be notified so data may be logged in a database server that is operational. The significance of this point is that in the approach of *Nilsen*, data flows from the databases servers to the central configurator, and then from the central configurator to the requestor workstations; data does not flow from the central configurator to the database servers.

According, *Nilsen* does not disclose, teach, or suggest the express element of “modifying the operation of one or more of said plurality of devices within said network by propagating said configuration changes from said centralized repository to the devices on said network to cause said configuration changes to take place” because (a) *Nilsen* does not teach modifying the operation of any devices, (b) *Nilsen* does not teach propagating configuration changes from a centralized repository to one or more devices on the network, let alone teaching “propagating said configuration changes from a centralized repository to the device on the network to cause said configuration changes to take place” as required by Claims 1 and 8.

Further, *Nilsen* does not disclose, teach, or suggest the express element of “gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network” because *Nilsen* does not gather in a centralized repository metadata that reflects configuration information that dictates a manner of operation for one or more of said plurality of devices within said network. The portion of *Nilsen* cited to show this element (Fig. 1, 120, 12, 124) merely shows a collection of information about the status of one or more database servers. The status information does not dictate “a manner of operation for one or more of said plurality of devices within said network” as required by Claims 1 and 8.

Moreover, as the approach of *Nilsen* does not store metadata as claimed within a central repository, *Nilsen* cannot disclose, teach, or suggest the express element of modifying metadata within said centralized repository to initiate configuration changes within said network” as required by Claims 1 and 8.

Accordingly, as one or more express elements of Claims 1 and 8 are absent from *Nilsen*, it is respectfully submitted the Claims 1 and 8 are patentable over the cited art and in condition for allowance.

Claims 3 and 10 are dependent claims, each of which depends (directly or indirectly) on Claims 1 or 8. Each of Claims 3 and 10 is therefore allowable for the reasons given above with respect to Claims 1 and 8. In addition, each of Claims 3 and 10 introduce one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time.

2. Claims 2 and 9 are Patentable over *Nilsen*

Claims 2 and 9 feature the elements of:

“gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network; and  
in response to a failure of the system,

recovering the centralized repository from a backup,  
using the metadata within the centralized repository to configure the  
system, and  
after the system is configured, recovering the system.”

These elements are not disclosed, taught, or suggested by *Nilsen*.

As the first element of Claims 2 and 9 is similar to the first element of Claims 1 and 8, *Nilsen* does not disclose, teach, or suggest the element of “gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network” in Claims 2 and 9 for at least the reasons given above with respect to Claims 1 and 8.

Further, *Nilsen* does not disclose, teach, or suggest the element of “in response to a failure of the system, recovering the centralized repository from a backup, using the metadata within the centralized repository to configure the system, and after the system is configured, recovering the system” for a variety of reasons. First, it is noted that the Office Action neither cites a single portion of *Nilsen* that discloses, teaches, or suggests this element, nor includes a single argument as to why this element is disclosed, taught, or suggested by *Nilsen*. Second, the approach of *Nilsen* lacks the notion of recovering the centralized repository from a backup. The Office Action states that configuration 134 is a backup for configuration 132. While configuration 134 may store data in a redundant manner compared to configuration 132, there is no suggestion or discussion in *Nilsen* of recovering configuration 132 from a backup in response to a failure of the system.

Third, the approach of *Nilsen* lacks the notion of using the metadata within the centralized repository to configure the system. Fourth, the approach of *Nilsen* lacks the notion of recovering the system after the system is configured.

Consequently, it is respectfully submitted that *Nilsen* does not disclose, teach, or suggest one or more elements of Claims 2 and 9. Therefore, Claims 2 and 9 are patentable over the cited art and are in condition for allowance.

3. Claims 4 and 11 are Patentable over *Nilsen*

Claims 4 and 11 feature the elements of:



“gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network;  
managing configuration of said system based upon the metadata within said centralized repository; and  
in response to a failure of the system,  
configuring the system based on the metadata restored in the centralized repository, and  
after the system is configured, recovering the system.”

These elements are not disclosed, taught, or suggested by *Nilsen*.

As the first element of Claims 4 and 11 is similar to the first element of Claims 1 and 8, *Nilsen* does not disclose, teach, or suggest the element of “gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network” in Claims 4 and 11 for at least the reasons given above with respect to Claims 1 and 8.

Further, *Nilsen* does not disclose, teach, or suggest the element of “managing configuration of said system based upon the metadata within said centralized repository.” The Office Action does neither cite a single portion of *Nilsen* that discloses, teaches, or suggests this element, nor includes a single argument as to why this element is disclosed, taught, or suggested by *Nilsen*, but merely concludes that this is express element, which does not appear in either Claim 1 or Claim 2, can be rejected on the same grounds as Claims 1 and 2. However, as previously discussed above, the approach of *Nilsen* does not manage the configuration of the system based upon the metadata within a centralized repository because the data stored within the configurators of *Nilsen* merely describes the status of the database servers, and does not dictate a manner of operation. Consequently, this element is not disclosed, taught, or suggested by *Nilsen*.

Moreover, *Nilsen* does not disclose, teach, or suggest the element of “in response to a failure of the system, configuring the system based on the metadata restored in the centralized repository, and after the system is configured, recovering the system.” The Office Action does neither cite a single portion of *Nilsen* that discloses, teaches, or suggests this element, nor includes a single argument as to why this element is disclosed, taught, or suggested by *Nilsen*.

The Office Action states that *Nilsen* (at Col. 3, lines 37-38) utilizes a backup/redundant configuration 134 to restore configuration 132. Applicants respectfully disagree with that characterization, as it is submitted that the portion of *Nilsen* cited states only that one controller could become the primary controller upon failure of the other, and lacks the concept of recovering the controller. However, even if what is asserted by the Office Action were true, "configuring the system based on the metadata restored in the centralized repository, and after the system is configured, recovering the system" as required by Claims 4 and 11 is still not shown, because the approach of *Nilsen* does not configure the system based upon metadata stored in a centralized repository. Therefore, it is respectfully submitted that this element is not disclosed, taught, or suggested by *Nilsen*.

Consequently, it is respectfully submitted that *Nilsen* does not disclose, teach, or suggest one or more elements of Claims 4 and 11. Therefore, Claims 4 and 11 are patentable over the cited art and are in condition for allowance.

4. Claims 5 and 12 are Patentable over *Nilsen*

Claims 5 and 12 feature the elements of:

"gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network; and  
replicating said system by performing the steps of,  
copying said metadata to a second centralized repository associated with a second system, and  
configuring said second system based on the metadata contained in said second centralized repository."

These elements are not disclosed, taught, or suggested by *Nilsen*.

As the first element of Claims 5 and 12 is similar to the first element of Claims 1 and 8, *Nilsen* does not disclose, teach, or suggest the element of "gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network" in Claims 5 and 12 for at least the reasons given above with respect to Claims 1 and 8.

As the remaining elements of Claims 5 and 12, the Office Action rejects the elements for the same reasons associated with Claims 1 and 4, even though the remaining elements of Claims 5 and 12 are not present in Claims 1 and 4. The Office Action states that *Nilsen* discloses a redundant alternative configuration 134 (Col 3, lines 34-36), however the Office Action does not make clear what significance that has. For example, the Office Action earlier characterized configuration 134 as being part of the system, but now appears to characterize configuration 134 as being part of the replicated second system in rejecting Claims 5 and 12. It is respectfully submitted that this is an inconsistent position, because in rejecting Claim 4, configuration 134 was characterized as being a backup/redundant component for configuration 132, where configuration 132 and 134 were part of the same system, while in rejecting Claim 5, configuration 134 is now characterized as part of a second system that was replicated.

Initially, it is respectfully noted that no portion of *Nilsen* suggests that a separate system may be replicated. While *Nilsen* describes using one controller 132 as the primary controller upon failure of the other (Col. 3, 35-38), using one controller in lieu of another is not replicating a system.

Second, no portion of *Nilsen* suggests "copying said metadata to a second centralized repository associated with a second system, and configuring said second system based on the metadata contained in said second centralized repository." This is so because *Nilsen* does not use metadata as claimed, does not copy metadata to a second centralized repository associated with a second system, and does not configure the second system based on the metadata contained in the second centralized repository. Consequently, it is respectfully submitted that *Nilsen* does not disclose, teach, or suggest this element.

Consequently, it is respectfully submitted that *Nilsen* does not disclose, teach, or suggest one or more elements of Claims 5 and 12. Therefore, Claims 5 and 12 are patentable over the cited art and are in condition for allowance.

5. Claims 6 and 13 are Patentable over *Nilsen*

Claims 6 and 13 feature the elements of:

"gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a

manner of operation for one or more of said plurality of devices within said network; and  
managing configuration of at least two of an application layer, an operating systems layer, and a hardware layer of said system based upon the metadata within said centralized repository.”

These elements are not disclosed, taught, or suggested by *Nilsen*.

As the first element of Claims 6 and 13 is similar to the first element of Claims 1 and 8, *Nilsen* does not disclose, teach, or suggest the element of “gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network” in Claims 6 and 13 for at least the reasons given above with respect to Claims 1 and 8.

Moreover, *Nilsen* does not disclose, teach, or suggest “managing configuration of at least two of an application layer, an operating systems layer, and a hardware layer of said system based upon the metadata within said centralized repository” as required by Claims 6 and 13. The Office Action asserts that this element is shown by *Nilsen* because *Nilsen* implicitly discloses two layers by teaching a historical analysis of data (Col. 3, lines 13-15) and the load on each of the database servers (Col. 3, line 62). Assuming, *arguendo*, that this is true, this in no way suggests managing the configuration of these layers based upon metadata within a centralized repository. To the extent that the controllers in the approach of *Nilsen* manage anything, the controllers “provides database server access information to each requesting workstation” (Abstract). Providing information to workstations about the availability and methods of access of database servers does in no way suggests the management of a configuration of either an application layer, an operating systems layer, or a hardware layer because those layers cannot be configured merely communicating to a third party information about their availability and methods of access. Therefore, it is respectfully submitted that *Nilsen* does not disclose, teach, or suggest this element.

Consequently, it is respectfully submitted that *Nilsen* does not disclose, teach, or suggest one or more elements of Claims 6 and 13. Therefore, Claims 6 and 13 are patentable over the cited art and are in condition for allowance.


#### IV. CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any fee shortages or credit any overages Deposit Account No. 50-1302.

Respectfully submitted,  
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#### CERTIFICATE OF MAILING

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on 5/5/03

by Clare Fung